

**COMMUNITY BASED INTEGRATED MANAGEMENT
OF CHILDHOOD ILLNESS (CIMCI-PLUS) PROJECT
AFRICARE - NTUNGAMO**

**FACTORS AFFECTING IMMUNIZATION COVERAGE AMONG
CHILDREN UNDER TWO YEARS IN NTUNGAMO DISTRICT:**
(A Formative Research carried out by CIMCI-Plus Project)

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Factors Affecting Immunization Coverage Among Children Under Two Years In Ntungamo District:

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BCC	Behavior Change Communication
CAO	Chief Administrative Officer
CIMCI	Community Based Integrated Management of Childhood Illness
CORPs	Community Owned Resource Persons
DDHS	Director of District Health Services
DHE	District Health Educator
DHT	District Health Team
DPT	Diphtheria, Pertussis and Tetanus Vaccine
EPI	Expanded Program on Immunization
HepB	Hepatitis B
HIV	Human Immuno deficiency Virus
Hib	<i>Haemophilus influenzae</i> type B Illness
HMIS	Health Management Information System
HSDs	Health Sub-Districts
HSSP	Health Sector Strategic Plan
KPC	Knowledge Practice and Coverage
MOH	Ministry of Health
OPV	Oral Polio Vaccine
PHC	Primary Health Care
TT	Tetanus Toxoid
WHO	World Health Organization

EXECUTIVE SUMMARY

Africare is implementing a five-year (October 1, 2003-September 30, 2008) Community-based Integrated Management of Childhood Illness (CIMCI- Plus) project in Ntungamo District in South Western Uganda. The major intervention areas include: malaria control (35%), Immunization (25%), Nutrition Promotion, Breastfeeding and other Micronutrients intake (15%), Diarrhea control (10%) and HIV/AIDS (15%) prevention and mitigation of its effects. The project is implementing CIMCI interventions in the sub-counties of; Bwongyera, Ihunga, Itojo, Kayonza, Nyakyera, Rugarama and Ruhaama. The target population includes children under five years (39,180), and women of child bearing age (42,911) as direct beneficiaries, as well as 104,476 indirect beneficiaries.

During September 2005, the CIMCI-Plus Project conducted a formative research on factors affecting immunization coverage in the district. The cross sectional exit study (which targeted mothers/caretakers who had just received immunization services) used both quantitative and qualitative research methods. The target respondents were 147 mothers/caretakers of children under two years, 5 DHT members, 16 Health Center staff and 24 EPI mobilizers. Mothers were randomly selected for interviews at the various immunization centers/outreaches while the other respondents were purposively selected due to their knowledge and experience regarding immunization in Ntungamo district.

The results of the study showed that 98% of the mothers/caretakers interviewed at the immunization sessions were knowledgeable about and could explain the importance of immunization. The mother/caretakers also mentioned that immunization protects children from diseases and increases the child's immunity against diseases. The other 2% of the mothers/caretakers interviewed said they take their children for immunization because they see other mothers doing the same.

Although mothers/caretakers interviewed understood the importance of immunization, very few of them (3.4%) were able to name all the immunizable diseases and the correct immunization schedule for children under one year. 58.3% of the EPI mobilizers could mention the immunizable diseases but most of them could not correctly state the immunization schedule for children under one year. Only two of the EPI mobilizers knew exactly their roles and responsibilities.

At the health units some health workers had not internalized the immunization schedule apart from the 9 months' measles vaccination. These health workers are expected to provide accurate information and advice to mothers/caretakers especially on the immunization days.

The DHT members indicated that a few health facilities immunized children on a daily basis. The study found that daily immunization takes place only at the three health sub districts (Health centre IV). As a result, some opportunities for vaccinating children are lost at the lower level health units.

Insufficient facilitation for the outreach immunization teams is one of the demotivating factors mentioned by the outreach staff. It was found that immunization activities were allocated only 10% of the overall Primary Health Care (PHC) funds in Ntungamo district. For example, a recent release for PHC activities for Ntungamo district was 14,098,800/= (USD 7,620) to support all activities for the quarter.

Immunization was allocated 1,400,000/= (USD 756) which is quite insufficient for immunization activities in a quarter.

According to the mothers/caretakers, some of the factors that hinder them from taking their children for immunization include:

- Ignorance of some mothers about the importance of immunity;
- The belief that their children will fall sick and die after immunization;
- The husbands stop mothers from taking children for immunization;
- The belief that these children whether boys or girls may not give birth in future; because health workers give them sterilizing injections.

On the other hand, most health workers appreciated the Ministry of Health Child Days strategy because it increased turn up of children at immunization sessions. This makes it possible to vaccinate those children that had missed out on the routine immunization sessions.

The health unit staff reported very minimal vaccine-stock outs which ensured the continuity of the immunization.

Though the field workers mentioned that the facilitation for immunization outreaches was not sufficient, they acknowledged receipt of the field allowances for the outreach services they provide.

The EPI mobilizers felt they were not adequately supervised and a good number of them did not have the Immunization Registers.

Most of the DHT members interviewed indicated that there had been an increase in immunization in the last three years. However, HMIS data indicated a decline in the use of antigens in the period between 2002 and 2004.

The study suggests the following recommendations in order to increase the immunization coverage for children under one year:

- Design and disseminate messages that will emphasize correct information on the effects and safety of the vaccines used.
- Intensify accurate messages on immunization to inform mothers/caretakers, EPI mobilizers and health workers about the importance of knowing and following the immunization schedule.
- Involve fathers and young men in the process of planning mobilizing and immunizing their children.
- Homes with fully immunized children should act as role model homes for mothers/caretakers who have not immunized their children.
- Intensify technical support-supervision visits to EPI mobilizers and Health workers during mobilization and while conducting immunization to fill in the information gaps.
- Lobby for the allocation of more resources from the PHC fund in order to promote EPI activities.
- Encourage joint planning and implementation by all stakeholders at the district level to ensure maximization of resources without duplicating efforts.
- Advocate for the Child Days strategy at district and sub county level and involve all stakeholders in mobilization and implementation.

1. BACKGROUND

1.1. Introduction

In January 2004, Africare conducted a Knowledge Practice and Coverage (KPC) survey in all the seven of the targeted sub-counties. The survey obtained information from mothers with children under two years of age in order to set indicators for tracking progress of the 5 key interventions implemented by the CIMCI-PLUS project.

According to the KPC survey, only 52.1% of children aged 12-23 months were fully immunized and 38.1% of the same children had received measles vaccine. These figures were below the nationally recommended immunization target of 85%. The results also indicated that 28.6% of mothers received at least two tetanus toxoid injections before the birth of their youngest child. Immunization is a core intervention area of the CIMCI Plus Project. Therefore there was a need to identify, examine and remedy the factors which affected immunization coverage in Ntungamo District.

One of CIMCI-PLUS project's objectives is to contribute to the HSSP II target of ensuring that every child is fully immunized by their first birthday, and every newborn protected from neonatal tetanus. The project will also supplement the MOH efforts to increase fully immunized children from 71% to 80%, increase DPT3/OPV 3 coverage from 83% to 90%, reduce DPT1-3 drop out from 16% to 10%, increase measles coverage from 83% to 90% and increase TT2 coverage among pregnant women from 50% to 80% (HSSP II). However, these targets cannot be achieved unless barriers to increasing immunization coverage are identified and appropriate action taken by respective stakeholders.

1.2. Study problem

The Uganda Ministry of Health recommends that all children complete their full immunization schedule before they are 12 months old. According to the HSSP II (2005/06-2009/2010 Draft 3), it was reported that the national coverage for DPT 3 rose to 83% in 2003/2004 compared to 55% pre HSSP 1 and that TT coverage improved from 42% to 50% in 2003/2004. Although there appeared to be an improvement in immunization nationally, Ntungamo presented a different picture. As seen above, the baseline KPC survey conducted in January 2004 by the CIMCI Plus in the 7 target sub-counties of Ntungamo showed that immunization levels were found to be below the national 85% target.

1.3. Goal

The goal of the study was to examine the major barriers to the full immunization coverage among children under two years of age in Ntungamo District.

1.4. Objectives

Specifically the study team set to achieve the following objectives:

- To explore the factors that exist at the health facility and community that promote or hinder increased immunization coverage.
- To establish which factors promote or hinder mothers/caretakers completing full immunization schedules for children before their first birth day
- To suggest recommendations for improving full immunization coverage in Ntungamo District in order to achieve the MOH targets.
- To disseminate the study findings so that they can be useful to both Ntungamo and other Districts with similar difficulties.

2.0. STUDY METHODOLOGY

2.1 Study location

The study was carried out in the seven sub-counties of Bwongyera, Ihunga, Itojo, Kayonza, Nyakyera, Rugarama and Ruhaama where CIMCI is operating.

2.2. Sample size and selection

A total of 147 mothers/caretakers of children aged 0-23 months were randomly selected from the mothers that had brought their children for immunization. Ten caretakers/mothers were interviewed from each facility at static and outreaches. Twenty-four EPI mobilizers and four members of the DHT were purposely selected by virtue of their position and knowledge of the subject matter. The study sample also comprised 8 health center in-charges from selected health units of Bwongyera, Kitondo, St. Lucia, Itojo Hospital, Kayonza, Nyakyera, Rugarama and Kishami

2.3. Methods of data collection

A triangulation of methods was applied. This included: (i) interviews with caretakers/mothers of children 0-23 months; (ii) Interviews with key informants; (iii) interviews with the Health Center in-charges and nurses directly involved in immunization; (iv) review of immunization registers at outreaches and static immunization sites and documents from the district health management Information systems.

2.4 Data analysis

Data collected were both qualitative and quantitative in nature. The analysis therefore followed both methods. Quantitative data was entered into the computer and analyzed using EPI INFO 3.3 software package. The qualitative data was categorized and analyzed manually. The frequencies of variables of interest were measured as well.

2.5. Limitations

The study envisaged reviewing documents particularly the mobilizers' immunization registers but none of the mobilizers had a register. We relied on word of mouth. It was also difficult to meet our target for members of the DHT as most of them were busy. Upon finding out that their colleagues had been interviewed, some members of the DHT were reluctant to participate in the exercise. These members said the information obtained was sufficient and we should not waste time interviewing them.

Also, only mothers who had taken their children to the immunization site were interviewed.

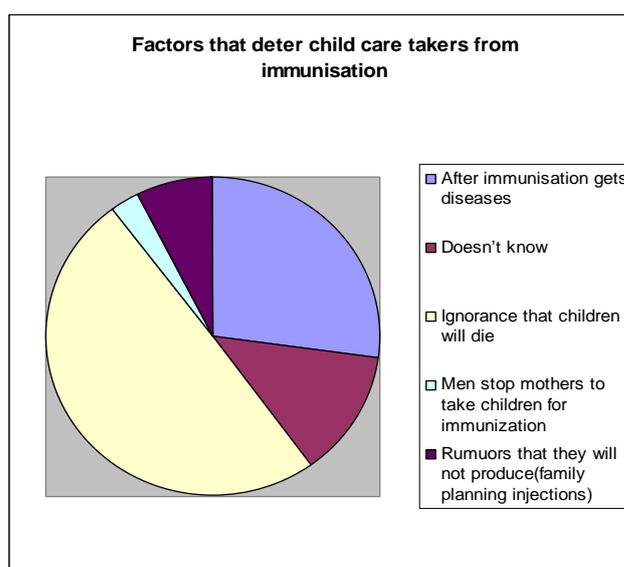
3.0 RESULTS

Caretakers/Mothers knowledge, practices and, beliefs about immunization

3.1 (i). Factors that deter some parents/caretakers from taking their children for immunization

Many caretakers mentioned that some of the factors that they thought may deter some parents/caretakers from taking their children were inadequate knowledge about immunization and the belief that children would die when vaccinated (49.7%). This misconception is a result of the first National Immunization Campaign during which mothers said children died as a result of receiving expired vaccines; others said that parents were afraid of their children becoming ill after immunization (27%).

Approximately six percent (5.5%) said that beliefs that children will fail to give birth in the future having been sterilized on immunization contributed to poor coverage of immunization. About 2.7% said some men stop their wives from taking children for immunization because they think their wives are going to meet other men. A summary of factors is indicated in the pie chart.



3.1.(ii) Reasons why some parents/caretakers fail to complete their children's immunization schedule

44.2% of the mothers/caretakers interviewed said some parents fail to complete children's immunization schedules because parents are not informed about the benefits of completing the immunization schedule. 32% said that if the child developed side effects after immunization, the parent did not take them for further immunization.. Other reasons for failure to complete immunization schedules are indicated in Table 1.

Table 1: Reasons for failure to complete immunization schedule.

Reasons for not completing immunization schedule	Frequency	Percent
Immunization side effects	47	32.00%
Laziness by the mothers	34	23.10%
Long distances	1	0.70%
Parents are not informed	65	44.20%
Total	147	100.00%

3.1.(iii) Caretakers/mothers knowledge of immunization schedules

Only 1 person out 147 (0.7%) mothers knew the correct antigens given at 10 weeks while 42 people (28.6%) knew the antigen given at 9 months. Details see table 2.

Table 2: Showing Caretakers/mothers knowledge of immunization schedule

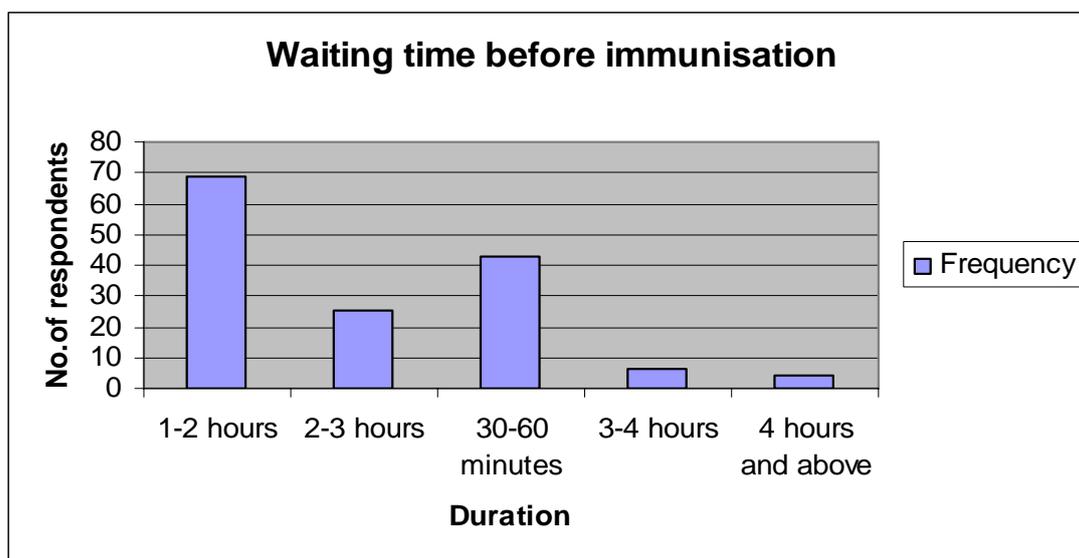
Schedule	Correct		Incorrect	
	Frequency	Percentage	Frequency	Percentage
At birth	13	8.80%	134	91.20%
At 6 weeks	6	4.10%	141	95.90%
At 10 weeks	1	0.70%	146	99.30%
At 14 weeks	5	3.40%	142	96.60%
At 9 months	42	28.60%	105	71.40%
At 6months	14	9.50%	133	90.50%
Child days	6	4.10%	141	95.90%

3.1.(iv) Caretakers/mothers’ knowledge immunizable diseases

Out of the 147 mothers interviewed, only 3.4% knew correctly all immunizable diseases while the rest (94.6%) did not know all. Most mothers mentioned measles and polio in their combinations and very few mentioned Hepatitis B and Haemophilus Influenzae type B illnesses.

3.1.(v) Waiting time before immunization

50% of the mothers interviewed said they waited between 1-2 hours, 29.3 % said waited between 30 -60 minutes, 17% waited between 2-3 hours and the rest 3 hours and above. This can be summarized by the graph below



3.1 (vi) Antigen intervals according to the recommended MOH/WHO

50.3% of the children’s cards indicated that the antigens were administered according to MOH/WHO recommended intervals. However most children’s cards indicated that they did not receive Polio 0 and when asked, most mothers said they did not deliver their children in the government health facilities. When mothers who did not follow

the vaccine intervals were asked why they had failed to do so, some of them said that sometimes health workers fail to turn up on the promised days. To quote one mother at Ngomba outreach in Nyakyera Sub-county;

“I did not follow the vaccine intervals recommended because sometimes we come and wait for health workers and they fail to turn up. They are on and off”.

“You know us women have many things that occupy our minds and if we don’t get constant reminders, we forget about the return dates”

Table 3: Antigen intervals according to the recommended WHO/WHO Protocol

	Frequency	Percent
Did not follow Recommended Antigen intervals	73	49.70%
Follow Recommended Antigen intervals	74	50.30%
Total	147	100.00%

More than half of the Child Cards seen (53.7%) had growth monitoring done every time the children went for immunization. The growth curves were well plotted. However when some mothers were asked whether the health workers interpreted the growth curves, they said that it was done rarely.

3.1 (vii) Caretakers/mothers suggestions on how to increase immunization

Most caretakers said that there should be increased mass mobilization (53%) at the community level, 26% said that there should be a law for every child to be immunized and if anybody breaks it, the officers responsible should enforce it. 7% suggested that more outreaches should be established in communities and 5% suggested that Local Councils should be involved in mobilization since they command more respect at the community level

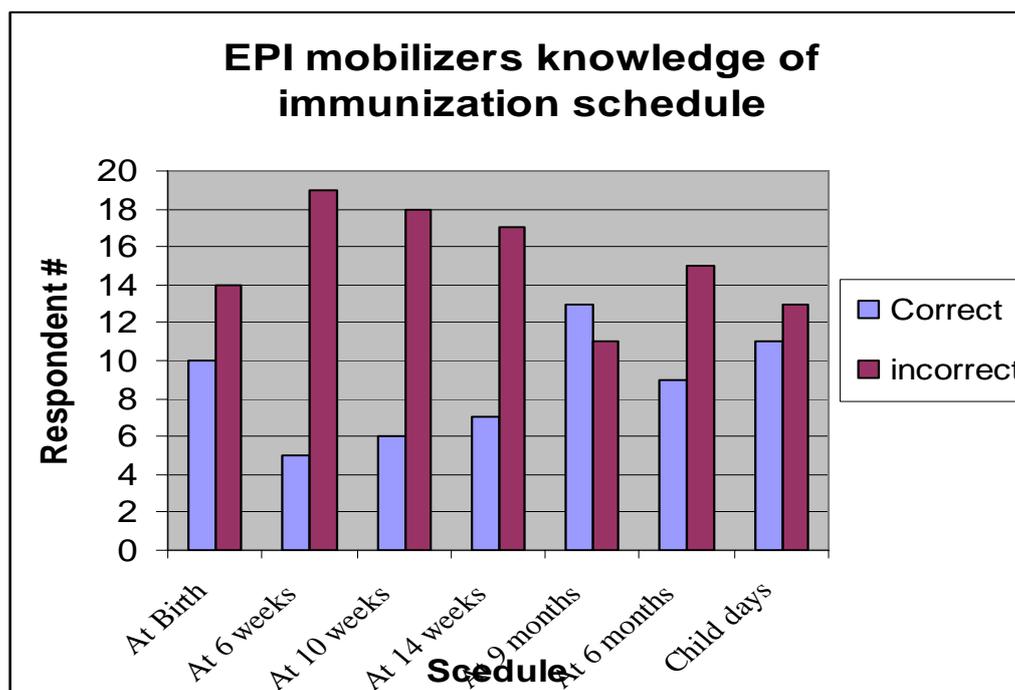
3.1 (viii) Women take children for Immunization

Evidently, from the study all the 147 people who took children to the immunization posts were mothers. This indicates that male involvement in their children’s immunization is still very low. Mothers who were asked whether they were supported by their husbands said men still perceive immunization as a woman’s responsibility.

4.0 EPI mobilizers knowledge, practices and, beliefs about immunization

4.1 EPI Mobilizers knowledge of the immunization schedule and immunizable diseases

Of the 24 EPI mobilizers only 14 knew all the immunizable diseases (58.3%) while the rest did not know all the immunizable diseases. Most of the EPI mobilizers were not knowledgeable about the immunization schedule as demonstrated in the chart below:



4.2. Mobilizers knowledge of their roles and responsibilities

Only 2 of the 24 (8.4%) mobilizers had sufficient knowledge of their roles and responsibilities. 33.3% said they mobilize for immunization, another 33.3% mentioned their role as health education while 6% said their role was to sensitize mothers about immunization only.

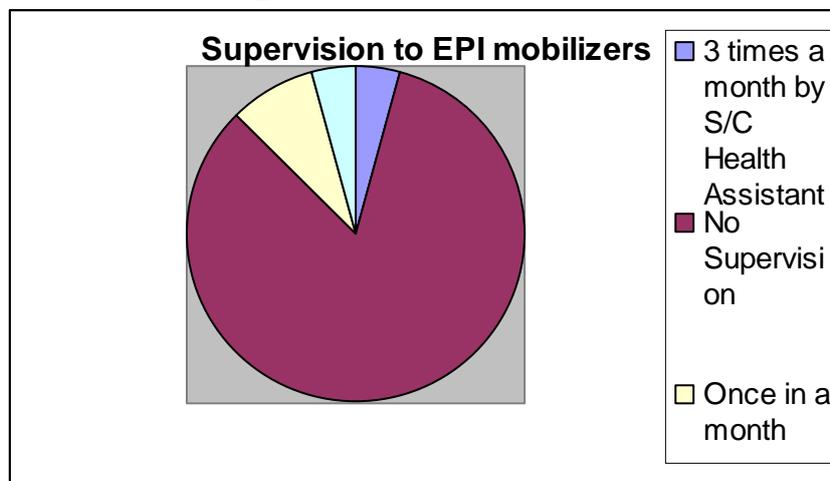
4.3. Provision of support supervision to EPI mobilizers.

83.4% of the EPI mobilizers said they had never been supervised by anybody since their training, 4.2% said they were supervised 3 times in a month by the Health Assistant, while 8.3% said they were supervised once a month. Due to lack of support supervision by anybody, the research revealed that none of the Mobilizers were using the EPI registers as most of them had small exercise books where they wrote the children's names. Some of them said the EPI registers got used up in the District and that they had never received new ones. The Chart 5 summarizes the findings.

On the other hand, when the interview team informally spoke to health workers about whether mobilizers were helping them especially in the following up of children who do not complete immunization schedules or who abscond in the middle of the

program, most of them said that most of the mobilizers were active a few months after selection and training only. After that the health workers only saw mobilizers at the outreaches or static and other mobilizers did not participate at all.

Supervision of EPI Mobilizers



When asked why they were no longer active, the mobilizers, most of whom were found in their homes, said they lost interest because the District promised them a stipend which, though very small, was never released on time. One mobilizer from Kyobwe parish remarked thus:

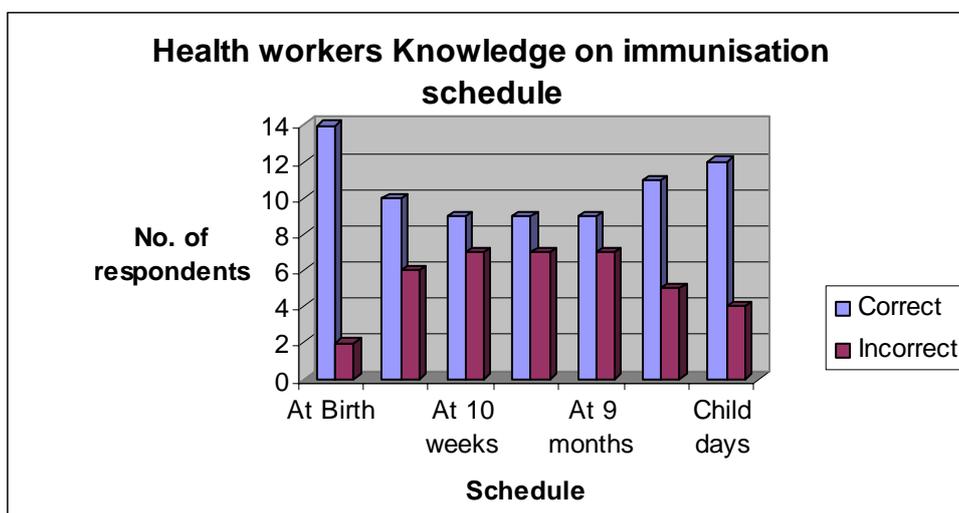
“Most of us started with determination and we could really move in the whole parish to mobilize and follow up mothers. The problem came when the District promised us some money that it has failed to give us.

.....if we were not told about it, we would be comfortable but sometimes we think that our money is given to health workers who refuse to give it to us and eat it”.

5.0 Health workers knowledge, practices and, beliefs about immunization

5.1. Health workers knowledge on immunization schedule

Of the 16 Health workers interviewed 88% knew the Antigen given at Birth, 9 knew Antigen given at 10 and 14 weeks and 9 months. The Chart summarizes the findings.



5.2 How child day's strategy has created a difference

87.5% of the Health workers interviewed appreciated that the Child Days strategy had made a difference in improving immunization coverage and 31.3% said the strategy had increased turnout of children. 18.8% said that it had helped to immunize children who were missed during routine immunization and 12.5% said it enabled children to receive Vitamin A and Albendazole.

5.3 Whether Immunization is done daily

75% of the Health workers interviewed said that their health facilities were not doing immunization daily while 25% indicated that they were.

5.4 Reasons for not doing immunization daily

31.3% of the health workers interviewed said that they were not conducting daily immunization because they run a weekly static immunization clinic, their health units were not conducting deliveries, and that they operated EPI outreach clinics. 18.8% of the health workers said they avoid vaccine wastage, 6.3% said there were no children to immunize daily, and others said they had never thought about it as a health facility to conduct a daily immunization clinic.

5.5. Charting on the vaccine fridges

All the Health facilities visited kept charts to monitor refrigeration temperature as recommended but most of them had only one copy of the charting sheets filled. When they were asked what happens after submission of the sheet to the District, the Health workers said that they copied the figures to another sheet for their records. All the filed copies were not signed therefore making their validity questionable.

5.6 Availability of vaccines all the time

Most of the health centers indicated that the vaccine stocks were available all year round. However, 3 health facilities indicated that they had suffered a vaccine stock out within a period of one year.

5.7. Support supervision of the Health Facilities

95% of the Health workers interviewed said apart from the bi-weekly visits of the Cold Chain Officer, they did not get support supervision from the Health Center IV. One Health worker said that:

“It was only Kizito and Sheba who used to come and speak to us; others come and hurry to sign in the visitors’ book and go”.

Another health worker said;

“When the doctor was still at Rubaare Health Center IV, he would visit us at least once a month to ask us whether we had any problems that required their attention but since he left, there has never been any one from the Health sub district to speak to us.. Ezra also used to do that”.

5.8 Challenges met by Health facilities in executing immunization schedules

68.8% of the health workers mentioned lack of reliable means of transport as one of their greatest challenges. Health workers said that though they were given bicycles for transport, they sometimes found it difficult to use them particularly during outreaches in some far places. Other challenges are summarized in the table below:

Challenges	Frequency	Percent
Lack of reliable means of transport	11	68.80%
Low turn up of children for immunization	3	18.80%
NM	1	6.30%
Women fear TT and not taking children for immunization	1	6.30%
Total	16	100.00%

5.9 Suggestions for improving immunization coverage

37% of the health workers interviewed said that if a means of transport and field lunch allowance were availed, immunization coverage would improve. 31.3% said they only needed to be availed with reliable transport means and the other 31.3% said there was need for more sensitization about the importance of immunization in communities.

6.0 DHT members knowledge, practices and beliefs about immunization

6.1 DHT member's knowledge of whether there was an increase or a decline in the last 3 years.

Most of the DHT members interviewed (75%) indicated that there was an increase in immunization for the last three years for all the Antigens but the HMIS data indicated a decline for all the Antigens in the years 2002, 2003, and 2004 as can be summarized in the table below.

HIMS data on Immunization coverage for the last 3 years (2002-2004)

Antigen	2002	2003	2004
▪ BCG	101	97	36
▪ OPV ₃	94	88	84
▪ DPT ₃ +HEPB ₃ +HIB ₃	91	85	84
▪ Measles	77	84	82
▪ TT ₂	49	35	52

6.2 Suggestions for improving immunization coverage.

All the DHT members said that the following were necessary to improve immunization coverage:

- Intensifying support supervision,
- Recruitment of more health workers,
- Joint planning for support supervision to health facilities, EPI mobilizers and CORPs with organizations promoting immunization like Africare,
- Timely release of funds could improve immunization coverage.

On the other hand 50% of the respondents said health workers who fail to do their duties should be removed from the program. Members of DHT said that despite

Factors Affecting Immunization Coverage Among Children Under Two Years In Ntungamo District:

reports being made about non-performing persons, the CAO's office took no further action in most cases.

4.0 CONCLUSION AND RECOMMENDATIONS

The study findings indicated that EPI mobilizers and some health workers did not know the immunization schedule and all the immunizable diseases. This was perceived as one of the main reasons why the mothers/caretakers also did not have sufficient knowledge on the diseases and their schedules. This is the reason why some caretakers were not taking their children to complete the immunization schedule. The EPI mobilizers did not give them accurate information. Refining and intensifying through refresher trainings to inform EPI mobilizers and Health workers about the immunization schedule and immunizable diseases should be done. In turn they will educate caretakers and mothers.

A number of mothers were of the view that there were still misconceptions in the communities about the safety of vaccines. Mothers also thought children were not immunized owing to their parents' concerns about the safety of the vaccines, and the effect of immunization on children's health and future parenting life. These beliefs come about probably due to insufficient knowledge about the process and benefits of immunization. Educating caretakers/mothers about the importance of immunization and dispelling fears about the safety of vaccines should be intensified by the EPI mobilizers, health workers and CORPs in communities.

It was evident from the study that all the 147 people that took children to the immunization posts were mothers. These mothers, when asked, said their husbands were not involved in their children's immunization, thus mothers received little or no support from their husbands. The involvement of men in their children's immunization should be encouraged during all BCC activities. Health workers should treat these men with respect and guide them, thereby overcoming the misconception that only women are responsible for children's immunization.

Homes with fully immunized children should act as role models in order to encourage parents who have not immunized their children to learn about the benefits of immunization from those who have.

As identified by most health workers and EPI mobilizers, technical support supervision is an area that requires immediate attention. The DDHS's office should intensify support supervision visits to the Health Center IVs. Likewise Health Centre IVs should carry out support visits to the health facilities they supervise. EPI mobilizers should be supported and supervised more too.

A number of children missed out on immunization because health facilities did not carry out immunization daily. If the health facilities were flexible enough to offer immunization daily, then possibly more children would receive vaccines and complete their immunization schedules.

More funds should be allocated to PHC in order to enable EPI activities to obtain a bigger percentage of the budget for immunization.

It is recommended that joint planning and implementation be carried out by all stakeholders in the District involved in immunization. This will ensure maximization of resources and increased efforts.

The role of Child Days should be emphasized as it leads to an increase in coverage and additional benefits previously discussed. More support should be provided and stakeholders should participate in mobilization of communities.

Annex 1: Question Guide for Health Center In-Charges and Health Workers who participate directly in Immunization

Respondent Number-----

Date of interview

Name of the interviewer.....,

Signature of the interviewer

Remarks by the supervisor.....

.....

Signature of the supervisor.....

Introduction and purpose

I'm called.....(name) working with Africare Project Ntungamo. Thank you for the services being rendered here. Africare is doing this research in collaboration with Ntungamo District health services. The purpose is to generate information that will be used to initiate discussion that will bring about a variety of possible strategies to improve immunization coverage in the district. Your views in the study are therefore very crucial to achieve the objectives of the study. The information collected from each of you is strictly confidential from others. You are therefore requested to be honest when answering questions. Do you agree to participate in the interview?. If the respondent agrees, proceed with the questionnaire. If the respondent refuses, terminate the interview.

Background information

Name of the Health Worker

Title

Duration of service at the Health unit.....

Sub-county.....

Name of the Health Unit.....

Questions

1. Is your unit doing immunization daily?

(a) Yes/No. -----

(b) If no give reasons?-----

2. Do you screen any children less than 24 months who are brought to the Health Units for what ever reason for their immunization status? Yes/No-----
 (a) *If yes*, do you vaccinate those children that needed vaccines?
 Yes/No-----
 (b) If no give reasons-----

3. Would you open a vaccine vial if one child presents to the H/unit for immunization? Yes/No? -----
 (a) If Yes, give reasons-----

 (b) If No, give reasons-----

4. Do you Immunize women aged 15-49 years at your health units? Yes/No-----
 (a) If No, give reasons-----

5. Do you participate in routine immunization? Yes/No-----
 (a) If yes, what role do you play?-----

 (b) What activities do you carry out during an immunization clinic?
 (i)Registration
 (ii) Health Education
 (iii) Weighing
 (iv) Screening
 (v) Vaccine Administration
6. Was your fridge continuously working well in the past 12 months?
 (a) Yes or No-----
 (b) If No why-----

 (c) When the fridge was not working, what did you do?

7. Did you have vaccine stock outs in the past 12 months?
 (a) Yes/No-----
 (b) If yes did you place an order immediately after the supplies ran out?
 Yes/No----- (If *no skip to e*)
 (c) If yes, how immediate was it (*circle the correct response*)
 (i) Within one day

- (ii) Within one week
- (iii) Within one month
- (iv) Others (specify) -----

(d) How long did it take to receive those orders?

- (i) Within one day
- (j) One week
- (ii) Two weeks
- (iii) One month
- (v) Others (specify) -----

(e) If no why wasn't the order placed immediately?-----

8. Do you operate outreach services on regular basis?

(c) Yes/No-----

(d) If no, why?-----

9. Are you normally facilitated to conduct outreaches? Yes/No-----.

If yes what forms of facilitation do you get?-----

10. Do you know the immunizable diseases in Uganda now? Yes/No-----

If yes can you mention them? **(Circle all the answers mentioned)**

- (i) Poliomyelitis (Polio)
- (ii) Tuberculosis (TB)
- (iii) Diphtheria
- (iv) Measles
- (v) Tetanus
- (vi) Whooping cough
- (vii) Hepatitis B (Liver disease)
- (viii) Haemophilus influenzae type B Illness (Meningitis and Pneumonia)

11. Do you know the Uganda national immunization schedule?

Yes/No-----

If yes, list the Antigen and when it is given **(Check with 'X' in the correct and incorrect columns as appropriate)**

Age of child	Vaccine	Disease prevented	Correct	incorrect
At birth or soon after birth	Oral polio ₀ , BCG	Polio and Tuberculosis		
6 weeks old	Oral polio ₁ , DPT ₁ -HepB ₁ +Hib ₁	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		

10 weeks old	Oral polio ₂ , DPT ₂ -HepB ₂ +Hib ₂	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		
14 weeks	Oral polio ₃ , DPT ₃ -HepB ₃ +Hib	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type b Illness		
9 months	Measles	Measles		
Vitamin A supplementation and Deworming				
6 months old and every 6 months until 5 years	Vitamin A drops in the mouth	Blindness and strengthens resistance against other diseases		
Child Days April October	Mebendazole /albendazole and vitamin A supplementation	Worm infestation, and blindness, strengthens resistance against other diseases		

12. (a) Are you aware of Child Days strategy? Yes/No----- (if no skip to 13)

(b) Do you think that the strategy has created any difference in improving the immunization coverage in your catchment area? Yes/No-----

(i) If yes how -----

(ii) If No why -----

13. Do you know your target population -children under 1 year? (verify and write the figure)----

(b) What are your immunization coverage rates for the last 1-year?

Antigen	Coverage
OPV ₃	
DPT ₃	
Measles	

14. (a) Do you conduct home visits for EPI monitoring in your catchment's population to find out immunization trends? -Yes/No-----If No give reasons-----

(b) If yes what are the common problems associated with immunization schedules

15. What challenges do you have as a Health facility in executing your immunization schedules?-----

16. What suggestions do you give to improve the immunization coverage?-----

Do you have any other comments or questions related to this interview?

Thank you for your time and active participation

Annex B) Question Guide for EPI Mobilizers

Respondent Number-----

Date of interview.....

Name of the interviewer.....,

Signature of the interviewer

Remarks by the supervisor.....

.....

Signature of the supervisor.....

Introduction and purpose

I'm called.....(name) working with Africare Project Ntungamo. Thank you for the services being rendered here. Africare is doing this research in collaboration with Ntungamo District health services. The purpose is to generate information that will be used to initiate discussion that will bring about a variety of possible strategies to improve immunization coverage in the district. Your views in the study are therefore very crucial to achieve the objectives of the study. The information collected from each of you is strictly confidential from others. You are therefore requested to be honest when answering questions. Do you agree to participate in the interview?. If the respondent agrees, proceed with the questionnaire. If the respondent refuses, terminate the interview.

Background information

Name of the Mobiliser

Date of interview.....

Sub-county.....

Name of the Health Unit/outreach post.....

Questions

1. How were you selected and by who?-----

2. Did you receive any training after selection? Yes/No-----

3. If yes what were you trained in and for how long?-----

----- How many
immunizable diseases do we have in Uganda now? ____

Can you list them? (**Circle all the mentioned**)

- (i) Poliomyelitis (Polio)
- (ii) Tuberculosis (TB)
- (iii) Diphtheria
- (iv) Measles
- (v) Tetanus

- (vi) Whooping cough
- (vii) Hepatitis B (Liver disease)
- (viii) Haemophilus influenzae type B Illness (Meningitis and Pneumonia)

5. Do you know at which age each vaccine, Vitamin A, Mebendazole /albendazole is administered and for what purpose? (*Check with 'X' in the correct and incorrect columns as appropriate*)

Age of child	Vaccine	Disease prevented	Correct	Incorrect
At birth or soon after birth	Oral polio ₀ , BCG	Polio and Tuberculosis		
6 weeks old	Oral polio ₁ , DPT ₁ -HepB ₁ +Hib ₁	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		
10 weeks old	Oral polio ₂ , DPT ₂ -HepB ₂ +Hib ₂	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		
14 weeks	Oral polio ₃ , DPT ₃ -HepB ₃ +Hib	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type b Illness		
9 months	Measles	Measles		
Vitamin A supplementation and De-worming				
6 months old and every 6 months until 5 years	Vitamin A drops in the mouth	Blindness and strengthens resistance against other diseases		
Child Days April October	Mebendazole /albendazole and vitamin A supp	Worm infestation, and blindness strengthens resistance against other diseases		

6. What roles do you play in your community?-----

7. How do you collaborate with health workers at immunization centers/outreaches? (Probe to know if the health workers think they are useful in increasing immunization coverage)-----

8. Are you aware of the Child Days strategy?

(a). Yes/No-----

(b). If yes how and if no why, do you think that the strategy has created any difference in improving the immunization coverage in your catchment area?-----

(c). If no give reasons.....

.....
.....
.....

9. Compared to the last 2 years, what is your view about the current immunization coverage trend?

Low/ High. -----

(a) If High, give reasons-----

(b) If low/decline, give reasons.-----

(c). What steps are you putting in practice to increase the coverage?-----

(d). What challenges do you face in executing your activities?-----

10.How are you facilitated to carry out your mobilization?-----

11. Do you know your target population for under 1 yrs' (Review the record book) -----

12. How are the community leaders involved in EPI activities?-----

13. Do you have any suggestions on how we can increase immunization coverage?

Do you have any questions related to what we have discussed?

Thank you for your time and active participation

C.1.10

Annex C) Question guide for members of the DHT

Respondent Number-----

Date of interview.....

Name of the interviewer.....,

Signature of the interviewer-----

Remarks by the supervisor.....

.....

Signature of the supervisor.....

Introduction and purpose

I'm called.....(name) working with Africare Project Ntungamo Thank you for the services being rendered here. Africare is doing this research in collaboration with Ntungamo District health services. The purpose is to generate information that will be used to initiate discussion that will bring about a variety of possible strategies to improve immunization coverage in the district. Your participation is voluntary and your views in the study are very crucial to achieve the objectives. The information collected from each of you is strictly confidential from others. You are therefore requested to be honest when answering questions. Do you agree to participate in the interview?. If the respondent agrees, proceed with the questionnaire. If the respondent refuses, terminate the interview.

Background information

Name of the DHT member

Title

Duration in service.....

1- From your supervisory visits and reports, do you think there has been a change in immunization for all the antigens for the last three years? Yes/No-----

2-If yes, what are those changes? (Increase or decline)-----

3-What are the possible causes of those changes? -----

4. Review records for the last 3 years.....

Immunization coverage for the last three years

Antigen	2002	2003	2004
BCG			
OPV ₃			
DPT ₃ + HepB ₃ +Hib ₃			
Measles			
TT ₂			

5- How many of your Health facilities carry out immunization daily?

For those that are not carrying out immunization daily what are the reasons?-----

6-Did you have vaccine stock outs in the past 12 months? Yes/No-----

If yes, what supplies ran out and why?-----

7-Do you have any other partners (NGOs, CBOs, and FBOs) involved in immunization in the District? Yes/No-----If yes, can you mention them and their role?-----

8-What challenges do you normally face in achieving full immunization coverage for the District?-----

9-What mechanisms are you putting in place to address the challenges?-----

10-What is your overall budget for PHC and what percentage does EPI take?-----

11. Do you have any suggestions on how we can increase immunization coverage?-----

Do you have any questions related to what we have discussed?

Thank you for your time and active participation

D) Question guide for Parents/ Caretakers of under 2 children

(Exit interview)

Respondent Number-----

Date of interview.....

Name of the interviewer.....,

Signature of the interviewer

Remarks by the supervisor.....

.....

Signature of the supervisor.....

Introduction and purpose

Thank you for bringing the child for immunization. Africare is doing this research in collaboration with Ntungamo District health services. The purpose is to generate information that will be used to initiate discussion that will bring about a variety of possible strategies to improve immunization coverage in the district. Your participation is voluntary and your views in the study are very crucial to achieve the objectives. The information collected from each of you is strictly confidential. You are therefore requested to be honest when answering questions

Do you agree to participate in the interview?. If the respondent agrees, proceed with the questionnaire. If the respondent refuses, terminate the interview.

Background information

Name of the Mother/Caretaker

Gender: (i) Male (ii) Female

Marital Status:(i) Married (ii) Single (ii) Widow (iv) Divorced (v) Other...

Level of education (i) Primary (ii) Secondary (iii) Tertiary (iv) None (v) Other....

Occupation.....

Village.....Parish.....Sub-county-----

Name of the Health Unit/Outreach.....Code-----

--

1. Did you take all your children for immunization? Yes/No-----

If yes, give reasons -----

If no, give reasons-----

2. What do you think are factors that deter some parents/caretakers from taking their children for immunization?-----

3 Why do parents/caretakers fail to take their children to complete immunization schedules?-----

4. Do you have a health card for your child? Yes/No-----

(Verify whether the child completed/will complete immunization in the first year of his/her life and also look at the interval between antigens whether they are the ones recommended by WHO/MOH. Also observe whether growth monitoring is done and plotted on the road to health ever time a child goes for immunization)-----

5. What distance (Kms) do you travel to bring children for routine immunization? -----

6. How do you travel to the immunization site? -----

7. For how long do you wait before your child is immunized? -----

8. How are you handled by the health workers at immunization center when you take your children for immunization/ Vaccination?-----

9. When you visit the health center/outreach, what services do you receive from the health workers other than immunization?-----

b) When you take your child for immunization, does the health worker advise you to come back to complete the a full immunization schedule?-----

10. Do you believe that immunization protects your children from diseases? Yes/No. -----

If yes, how?-----

If no, why?-----

11. Do you know the immunizable diseases? Yes/No-----

If yes, can you mention them? (**Circle all the answers mentioned**)

- i. Poliomyelitis (Polio)
- ii. Tuberculosis (TB)
- iii. Diphtheria
- iv. Measles
- v. Tetanus
- vi. Whooping cough
- vii. Hepatitis B (Liver disease)
- viii. Haemophilus influenzae type B Illness (Meningitis and Pneumonia)

12. Do you know the immunization schedules?

Yes/No-----

If yes, list the Antigen and when it is given` (**Check with 'X' in the correct and incorrect columns as appropriate**)

Age of child	Vaccine	Disease prevented	Correct	incorrect
At birth or soon after birth	Oral polio ₀ , BCG	Polio and Tuberculosis		
6 weeks old	Oral polio ₁ , DPT ₁ -HepB ₁ +Hib ₁	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		
10 weeks old	Oral polio ₂ , DPT ₂ -HepB ₂ +Hib ₂	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type B Illness		
14 weeks	Oral polio ₃ , DPT ₃ -HepB ₃ +Hib	Polio, diphtheria, whooping cough, tetanus, Hepatitis B & haemophilus influenzae type b Illness		
9 months	Measles	Measles		
Vitamin A suplimentation and Deworming				
6 months old and every 6 months until 5 years	Vitamin A drops in the mouth	Blindness and strengthens resistance against other diseases		
Child Days April October	Mebendazole /albendazole and vitamin A supp	Worm infestation, and blindness strengthens resistance against other diseases		

13. Do you know or believe in any other ways by which children could be protected from diseases other than immunization? Yes/No-----

If yes, mention them-----

14. Do you have any suggestions on how we can increase immunization coverage ?-----

Do you have any comments/questions regarding what we have discussed?

Thank you for your time and active participation